

Applicant: Michael Kowalchik, et al.
U.S.S.N.: 10/731,622
Filing Date: December 9, 2003
EMC Docket No.: EMC-01-102CIP1

REMARKS

In response to the Office Action mailed January 17, 2006, applicants respectfully request reconsideration. In the Office Action, claims 30-32, 34-43, 45 and 47-50 were rejected. Based on the foregoing, the rejections are respectfully traversed.

Claim Rejections Under 35 U.S.C. §103

Claims 30-32, 34-43 and 47-50 stand rejected under 35 U.S.C. §103(a) as being unpatentable over by Brandt et al. in view of Rao (U.S. Patent No. 5,845,104). The examiner states that, although Brandt does not teach non-volatile memory devices, Rao does, and therefore, it would have been obvious to utilize the flash memory of Rao in the system of Brandt. This rejection is respectfully traversed, because both Brandt and Rao teach against the combination suggested by the examiner and because the combination suggested by the examiner is based on improper hindsight reconstruction.

In the examiner's comments in the Advisory Action, the examiner stated that he did not agree that Brandt teaches away from using flash memory, as he believes that there are as many reasons to use it as not. The examiner further stated, "It is merely a design choice based on the considerations so well known to those of even rudimentary skill in the art such as cost, size, speed, etc. Brandt simply chose the cheaper route."

However, applicant respectfully asserts that the examiner seems to be ignoring the direct intent and teaching of Brandt, as outlined in applicants' previous response. Specifically, Brandt teaches, in Column 6, lines 3-6, that his system "*is an improvement over* directly coupling host 10 to the high volume data storage subsystem 25, or *using a solid state type device, such as caching through the use of a RAM for such interfacing.*" Brandt's intent with his invention is to maximize the highest throughput performance at the least cost between a host computer and a mass storage system (See the Abstract). Brandt states that, with this approach, "the high cost of solid state interfacing is significantly avoided by a large margin..." (Column 6, lines 9-11). Furthermore, Rao teaches, in Column 8, line 39, that flash memory is "*expensive*". Given that Brandt's intent is to maximize the highest throughput performance *at the least cost*, and Rao teaches that flash memory is expensive, there can be no motivation to combine the teachings of

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these references. Therefore, based on the teachings of Brandt and of Rao, one of ordinary skill in the art would be specifically *discouraged* from replacing Brandt's multiple disk drives with non-volatile, solid state memory devices.

In establishing a *prima facia* case of obviousness under 35 USC 103, it is incumbent upon the Examiner to provide a "clear and particular" showing of "actual evidence" of a suggestion, teaching, or motivation to combine references. In re Dembiczak, 50 USPQ 2d, 1614, 1617 (Fed. Cir. 1999). "Broad conclusory statements regarding the teachings of multiple references, standing alone, are not evidence." Id., citing McElmury v. Arkansas Power and Light Co., 995 F.2d 1576, 1578, 27 USPQ2d. 1129, 1131 (Fed. Cir. 1993) (internal quotations omitted).

In the rejection, the examiner has broadly stated that Brandt teaches multiple disk drives, that Rao teaches the use of flash memory and that, based on ordinary skill in the art, it would be obvious to combine the two references to come up with applicants' invention. The examiner has not specified any teaching in either reference that would support this combination. Furthermore, the examiner seems to have ignored Brandt's direct teaching *against* the use of solid state memory, with this teaching against being supported by Rao.

In In re Dembiczak, the Court of Appeals for the Federal Circuit recognized that "rigorous application" of the requirement for a showing of a teaching or motivation to combine references is the "best defense against the subtle but powerful attraction" of improper hindsight-based obvious analysis. Id.; See also, Para-Ordnance Manufacturing, Inc. v. SGS Importers International, Inc., 73 F.3d 1085, 37 USPQ2d 1237 (Fed. Cir. 1995). ("obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor"). This is especially true in cases where the ease with which the invention may be understood "may prompt one to fall victim to the insidious effect of hindsight syndrome wherein that which only the inventor taught is used against its teacher." Id. citing W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983).

The examiner states that even one of rudimentary skill in the art would see that the type of memory used in Brandt is a design choice. However, the examiner has not provided any evidence in either reference or any documentary evidence to prove that, based on the teachings of Brandt and Rao, that is the case. Only applicants' disclosure teaches the use of non-volatile

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memory devices in a data storage device as recited in applicants' claims. Accordingly, the only support for the examiner's position is improper hindsight reconstruction. And, as set forth above, this still ignores the fact that both Brandt and Rao teach away from the combination proposed by the examiner.

Accordingly, because Brandt teaches away from utilizing any type of flash, RAM or other type of solid state memory that is not a disk drive because it is expensive, because Rao supports the conclusion that flash memory is expensive, and because the only basis for the combination proposed by the examiner is improper hindsight reconstruction, applicants assert that the 35 U.S.C. §103(a) rejection of independent claims 30, 43, 45, 47, 49 and 50 are improper as being based on an improper combination of references.

Applicants therefore assert that independent claims 30, 43, 45, 47, 49 and 50 are allowable over the cited art of record and that the 35 U.S.C. §103(a) rejection of independent claims 30, 43, 45, 47, 49 and 50 should be withdrawn.

Claims 31 and 35-42 depend from independent claim 30 and are allowable for at least the same reasons as independent claim 30. Claim 48 depends from independent claim 47 and is allowable for at least the same reasons as independent claim 47.

Double Patenting

Claims 30-50 were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 14-16 and 18-20 of copending Application No. 10/004,090. As set forth in Part 5 of the Advisory Action, the examiner has indicated that the Terminal Disclaimer filed 10/28/05 has overcome the double patenting rejection set forth in the final Office Action. Accordingly, the double patenting rejection is moot and should be withdrawn.

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In view of the foregoing amendments and remarks, the applicants assert that claims 30-32, 34-43, 45 and 47-50 are allowable and respectfully request favorable reconsideration.

In the event the Examiner deems personal contact desirable in the disposition of this case, the Examiner is invited to call the undersigned attorney at (508) 293-7835.

Please charge all fees occasioned by this submission to Deposit Account No. 05-0889.

Respectfully submitted,

Dated: 5/16/06



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